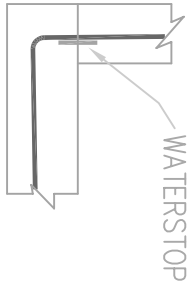


C.U. = CONSTRUCTION JOINT

LIQUID-TIGHT JOINT ----- YES ----- NO

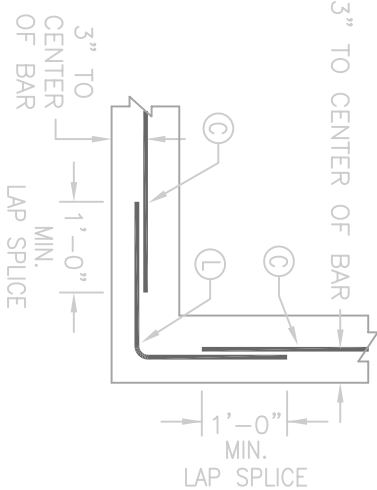
LIQUID-TIGHT JOINT OPTIONS

- 1) NON-METALIC WATERSTOP (PVC)
2) HYDROPHILIC WATERSTOP



WALL CORNER DETAIL (PLAN VIEW)

1. IF SLAB AND WALL ARE POURED SEPARATELY, THE SLAB SURFACE MUST BE THOROUGHLY CLEANED WITH WATER AND A WIRE BRUSH. THE SURFACE OF THE JOINT SHALL BE KEPT MOIST FOR AT LEAST 1 HOUR PRIOR TO PLACEMENT OF NEW CONCRETE.
2. THE SLAB AND WALL MAY BE POURED AT THE SAME TIME ELIMINATING THE NEED FOR A CONSTRUCTION JOINT.



SLAB CORNER DETAILS
RESTRAINING SLAB OPTIONS SEE PA-023
SEE PA-024

GENERAL DESIGN NOTES:

- DRAINAGE SHALL BE AWAY FROM THE WALL.
- THE MINIMUM WIDTH OF THE BACKFILL AGAINST THE WALL SHALL BE EQUAL TO OR GREATER THAN THE BACKFILL HEIGHT.
- MAXIMUM FOOTING CONTACT PRESSURE IS 240 psf/ft.

DESIGN STRENGTHS: WORKING STRESS DESIGN

- CONCRETE $f_c = 4,000$ psi • STEEL $f_s = 20,000$ psi (GRADE 40)

WALL DESIGN LOADING:

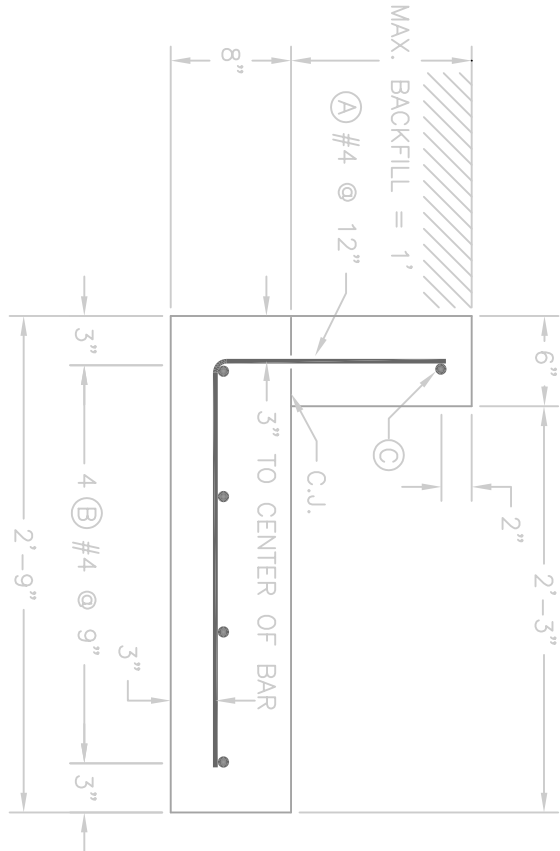
- 313 STANDARD – LATERAL EARTH PRESSURE VALUES,
SEE SECTION IV OF THE FIELD OFFICE TECHNICAL GUIDE.
- MANURE LOAD INSIDE = 65 psf/ft.
 - SOIL BACKFILL LOAD OUTSIDE = 60 or 75 psf/ft.
 - SURCHARGE LOAD = 120 psf
 - SOIL BACKFILL DENSITY = 110 pcf.
 - WATER TABLE MUST BE BELOW THE FOOTING ELEVATION

WALL RESTRAINT REQUIREMENTS:

- 5" THICK SLAB, SAFETY FACTOR AGAINST SLIDING 1.5 MIN.

BACKFILL HEIGHT (OUTSIDE LOAD)	SLAB LENGTH NO INSIDE LOAD EFP=60 EFP=75	SLAB LENGTH FULL INSIDE LOAD
1 FOOT 0 FEET	9 FEET NO SLAB	10 FEET NO SLAB

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE. IT WAS DEVELOPED IN COOPERATION WITH THE WISCONSIN DEPARTMENT OF AGRICULTURAL, TRADE AND CONSUMER PROTECTION. THE DESIGN FOLDER IS FILED AT THE NRCS STATE OFFICE, 8030 EXCELSIOR DRIVE, MADISON, WI. 53717-2906



ESTIMATED QUANTITIES

CONCRETE (0.086 CU.YDS./LIN.FT.) _____ CU.YDS.
STEEL #4 (0.668 LBS./FT) _____ LBS.

- CONCRETE SHALL MEET PA STANDARD 313 OR 561 SPEC REQUIREMENTS.
- SUBSTITUTION OF GRADE 60 BARS IS PERMITTED.
- MINIMUM SPLICE LENGTH FOR MARK (B) AND (C) BARS IS 12"
- STEEL QUANTITY DOES NOT INCLUDE SPLICE LENGTHS.

TOTAL LENGTH OF WALL _____ FT.

STEEL SCHEDULE

MARK	SIZE	QUAN	TYPE	R	S	LENGTH	TOTAL LENGTH
A	4	53	2	1'-3"	2'-3"	3'-6"	
B	4	212	STR	---	---		
C	4	53	STR	---	---		
L	4	2	2	2'-0"	2'-0"	4'-0"	

#4 BARS, TOTAL LENGTH



NOTES:

1. DIMENSIONS ARE TO THE REINFORCING BAR SURFACE UNLESS OTHERWISE NOTED.
2. BACKFILL TO THE TOP OF THE WALL IS RECOMMENDED FOR FROST PROTECTION.



File No.
PA-017A

Drawing No.

Sheet _____ of _____

Date
06/23/05

Designed _____
Drawn TJA
Checked _____
Approved by _____

_____ COUNTY, PENNSYLVANIA

1' HIGH, 6" L-WALL (W/SURCHARGE)

(ADAPTED FROM WI-510, APRIL 2005)